There are chapters covering the themes of servant or master, technics out of control and the system. In addition there are two chapters describing movements beyond the contested ideas. Chapter 6, on new approaches to creativity, has three examples – 'bridges' – that tried to get beyond the drawing up of ethical codes for the profession by collaborating with other groups. These three are the appropriate technology movement, the Experiments in Art and Technology (EAT) network, and the Innovation Group.

Chapter 7 covers changes in the education of engineers in this period. The 20 per cent of course time that had been spent on non-scientific subjects – literature, philosophy and history of technology – became contested ground, with many different new approaches being tried. Wisnioski takes four cases to cover the details. Three of them, UCLA, Caltech and MIT, are better known than the fourth, Harvey Mudd College, part of the Claremont Colleges campus. Its course, combining science, engineering and humanities, was abandoned in 1974 when overworked teachers returned to seeking tenure and the comfort of a disciplinary identity.

The richness of Wisnioski's mining of the literature comes at a price. It leaves no room for other approaches. Wisnioski includes no interviews with the people involved. Plenty of people from that period are still around. There is no room for comparison with what was happening in Europe and technical literature outside engineering is excluded. For example, there was a separate literature on risk assessment on both sides of the Atlantic.

Three groups of people might read this book. First, those who were working in the 1970s and would enjoy some nostalgia, and second, those interested in the history of ideas. Wisnioski claims to show that American engineers used ideas from the new 'technology and society genre' (p. 42) leading to new words appearing in their discussions. Visual representations of ideas are given in the form of adverts, cartoons and so on. A third group is those facing similar issues in the present. The debates of the 1960s and 1970s are relevant today.

Since the period covered in the book, we have witnessed the *Challenger* disaster and Chernobyl – both in 1986 – and more recently the Fukushima failure. These events were influenced by decisions in which engineers knowingly took risks. In the case of *Challenger*, it was known that the Thiokol sealant in the booster engine might fail at low temperatures yet the launch went ahead in a freezing January. Would a code of ethics have made any difference? What would have made a difference?

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GABRIELLE HECHT, **Being Nuclear: Africans and the Global Uranium Trade**. Cambridge, MA: MIT Press, 2012. Pp. xx + 451. ISBN 978-0-262-01726-1. £20.95 (hardback).
doi:10.1017/S0007087414000351

The pivotal role of Africa in the Manhattan Project – the world's first nuclear weapons programme – is quite underplayed, if not completely unknown to the public. The uranium bomb dropped on Hiroshima could not have been produced without the wartime priority access that the Allied powers had secured to the uranium deposits in the Belgian Congo. Gabrielle Hecht's *Being Nuclear* brings back the focus on Africa through her detailed study of African uranium and the technopolitics surrounding it, interwoven in the continent's colonial past and postcolonial existence. Drawing on intensive archival and ethnographic research, she has written the comprehensive history of uranium mining and trade in Africa which has been long overdue.

Hecht coins the expressions 'nuclearity' and 'nuclear exceptionalism' (pp. 3–4, 6) to underline the uniqueness conferred on nuclear objects and thereby their rupture from the banal. Yet this nuclearity permeates the everyday lives of black workers in the uranium mines in Gabon, Niger, Madagascar, Namibia and South Africa, who must brave radioactive contamination for economic survival. Hecht demonstrates this paradox amply by outlining the neglect of human vulnerabilities

to radioactivity for financial profit, colonial exploitation and racial injustice. The book is a startlingly clear study underlining the paradoxes of nuclear objects – they lie at the crossroads of radioactive invisibility and stigmatic radiation-phobia.

In the part of her book titled 'Nuclear work', she provides a detailed account of how political and economic considerations shaped notions of radiological health dosimetry, so far unseen in historical studies on the nuclear subject. The book studies radon contamination, which significantly increases the chances of lung cancer in populations exposed to it for a long time. Radon, which is emitted by uranium ores, is hard to measure and highly toxic, and threatens the everyday life of the uranium mine worker – and yet he/she is defenceless against this occupational hazard, thanks to the invisibility of the peril. Hecht goes beyond the known narrative of colonial exploitation and racial prejudices when she highlights the neglect of workers' health by the Commissariat à l'énergie atomique on the French mainland, and the discontent of unionized white workers against the South African mining industry. She thus portrays the trivialization of human lives across societies on the altar of empires, nation states and corporations, and makes a powerful point when she says 'radiation does not discriminate' (p. 323).

The book allots centrality to the concept of 'nuclearity', which Hecht defines as 'an expression of technological power, a product of social and cultural contestation' (p. 319). This she explores through studying the challenges of governance posed by the non-demarcation of the uranium-bearing yellowcake (milled uranium oxide) as a 'nuclear thing', and how on the one hand it jeopardizes workers' health, and on the other heightens the possibilities of uranium-trafficking and augments risks of nuclear proliferation.

Not only does the book stand out as one of the most comprehensive attempts to study the history of uranium mining in Africa, it also caters to an expansive academic audience – from historians of science and technology and sociologists and anthropologists of science, to those taking a broader interest in labour rights, public health issues and mining corporations. Hecht informs her readers of several unknown yet striking facts about mining in Africa. One such fact is the production of yellowcake as a by-product in South African gold mines, and the deliberate neglect of workers' health that this engenders – they receive no radiation protection, since they are gold miners and not uranium miners. Hecht's study is meticulous and the description 'thick', making it a complex but rewarding read. By focusing on uranium, she opens up a new vista in research on nuclear issues, which tends to be limited to reactors and warheads. The 'nuclearity' of uranium, after all, has remained unrecognized even in academic research. How scholars embrace the task of carrying this enterprise forward will only be apparent in years to come.

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Carsten Timmermann and Elizabeth Toon (eds.), **Cancer Patients, Cancer Pathways: Historical and Sociological Perspectives**. Basingstoke: Palgrave Macmillan, 2012. Pp. xii + 270. ISBN 978-1-137-27207-2. £55.00 (hardback).
doi:10.1017/S0007087414000363

The intent of this timely collection of essays is captured in the cover illustration by Jo Spence: a surgical team peer over their masks at the photographer on the operating table, the surgeon's lurid orange gloves held aloft in preparation, as the patient turns the camera's gaze back in his direction. The historiographical approach is bookended by the editors' introductory suggestion that the scholarship should likewise reorient its perspective, and by John Pickstone's concluding remarks on the utility of reinstating the idea of the patient as a patron in the pursuit of relevant contemporary history.

The individual with cancer has been a relatively shadowy presence in the recent historiography of the disease. Siddharta Mukherjee's publishers might argue that patients are central to his recent